

FIG. 1

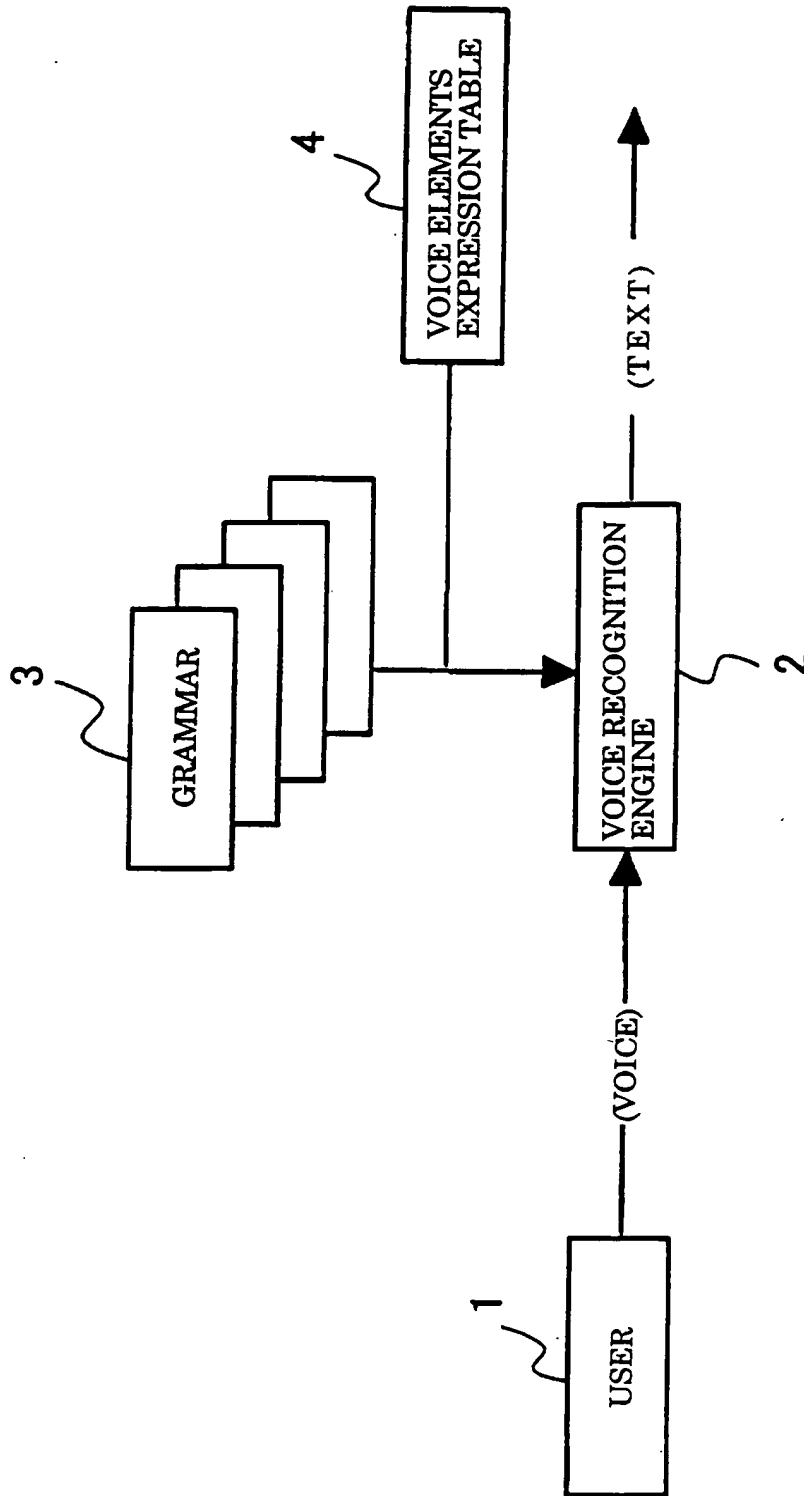


FIG. 2

0 (REI)	r e e
0 (REI)	r e e:
0 (REI)	r e i
0 (ZERO)	z e r o
1	i c h i
2	n i
2	n i i
2	n i i:
3	s a_n
4 (SHI)	s h i
4 (SHI)	s h i i
4 (SHI)	s h i i:
4 (YON)	y o_n
5	g o
5	g o o:
5	g o u
6	r o k u
7 (SHICHI)	h i c h i
7 (NANA)	n a n a
7 (SHICHI)	s h i c h i
8	h a c h i
9 (KU)	k u
9 (KYUU)	k y u u
9 (KYUU)	k y u u:

FIG. 3

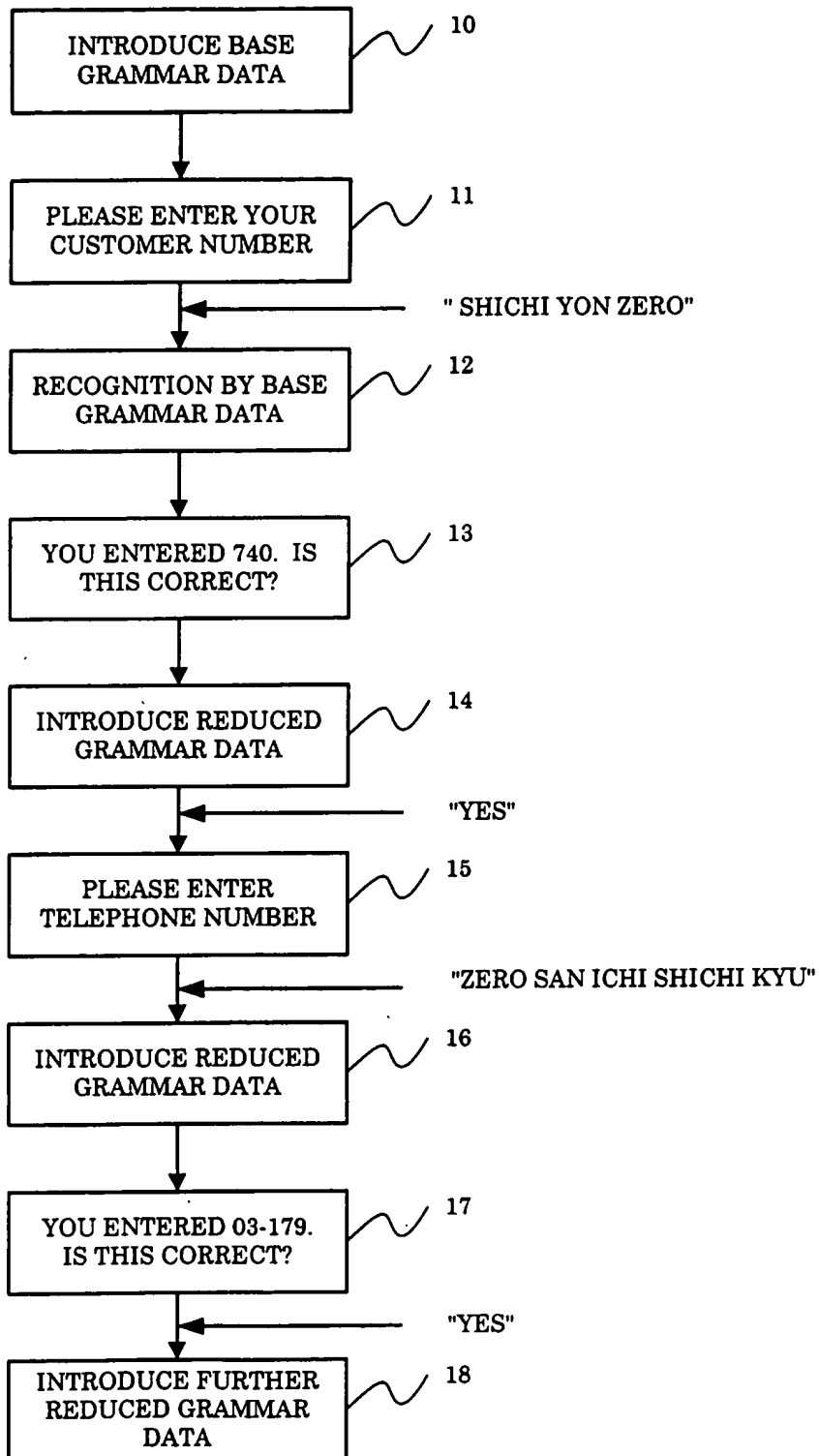


FIG. 4

<digits>::=<num1><num1><num1> .

<num1>=

0 |  
1 |  
2 |  
3 |  
4 |  
5 |  
6 |  
7 |  
8 |  
9 .

<0> = | z e r o .                      ← 22

<1> = | i c h i .

<2> = | n i | n i i | n i i .

<3> = | s a \_ n .

<4> = | y o \_ n .                      ← 21

<5> = | g o | g o o : | g o u .

<6> = | r o k u .

<7> = | h i c h i | s h i c h i .      ← 20

<8> = | h a c h i .

<9> = | k u | k y u u | k y u u : .

FIG. 5

$$\langle \text{digits} \rangle ::= \langle \text{num1} \rangle \langle \text{num1} \rangle \langle \text{num1} \rangle .$$

**<num1>=**

01

11

2 |

3 i

41

51

61

71

8 i

9.

 $\langle 0 \rangle = | \text{zero} .$ 
$$\langle 1 \rangle = |i \text{ ch } j|.$$
$$\langle 2 \rangle = |n_i| n_{ii} |n_{ii}|.$$

$\langle 3 \rangle = |s a_n|$ .

$$\langle 4 \rangle = |y_{0_n}|$$
$$\langle 5 \rangle = |g o| g o o: | g o u.$$

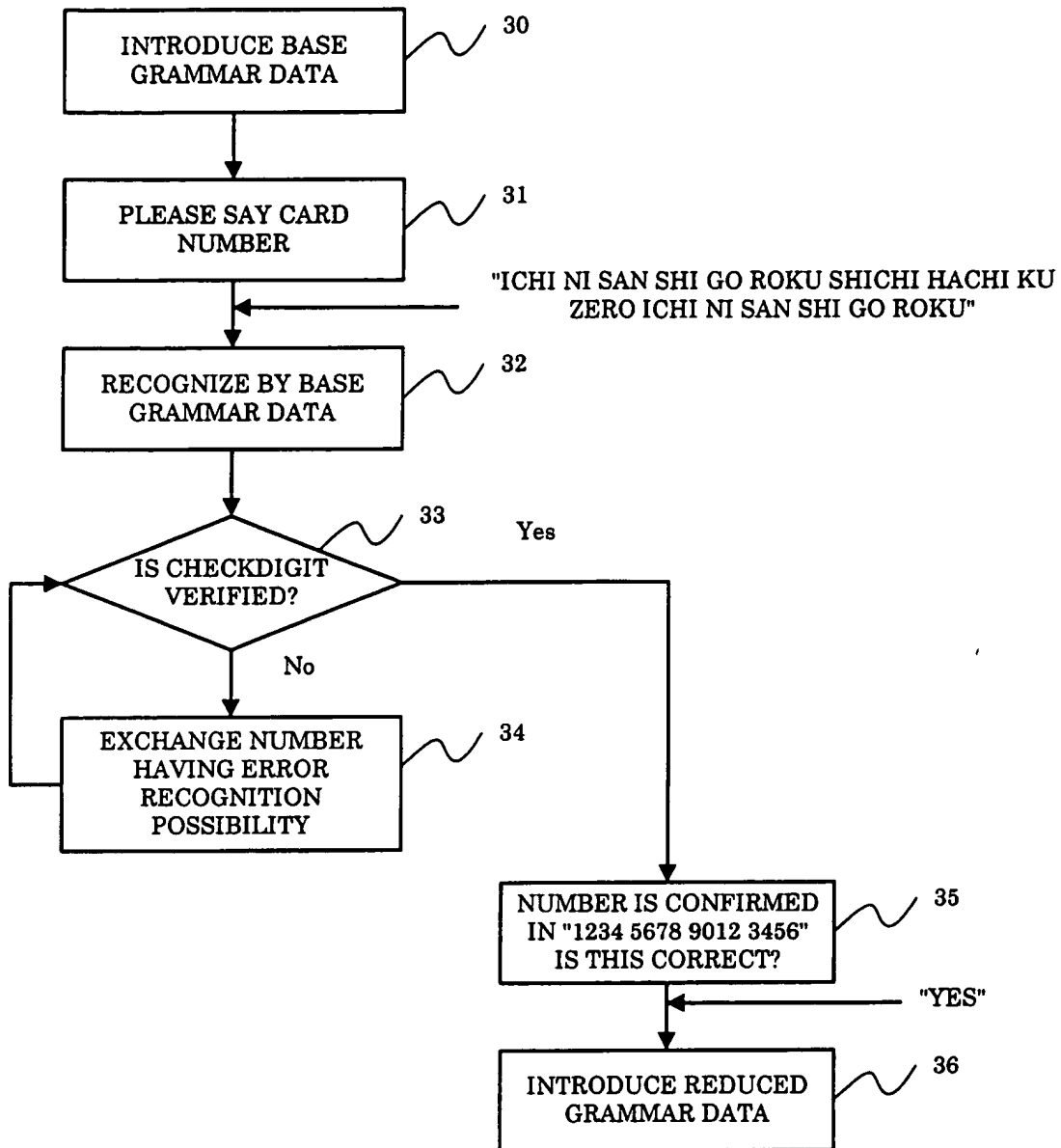
<6> = roku.

$\langle 7 \rangle = |hich i| shich i.$

$\langle 8 \rangle = |h a c h i|$ .

<9> = | ky u u | ky u u: .

FIG. 6



**FIG. 7**

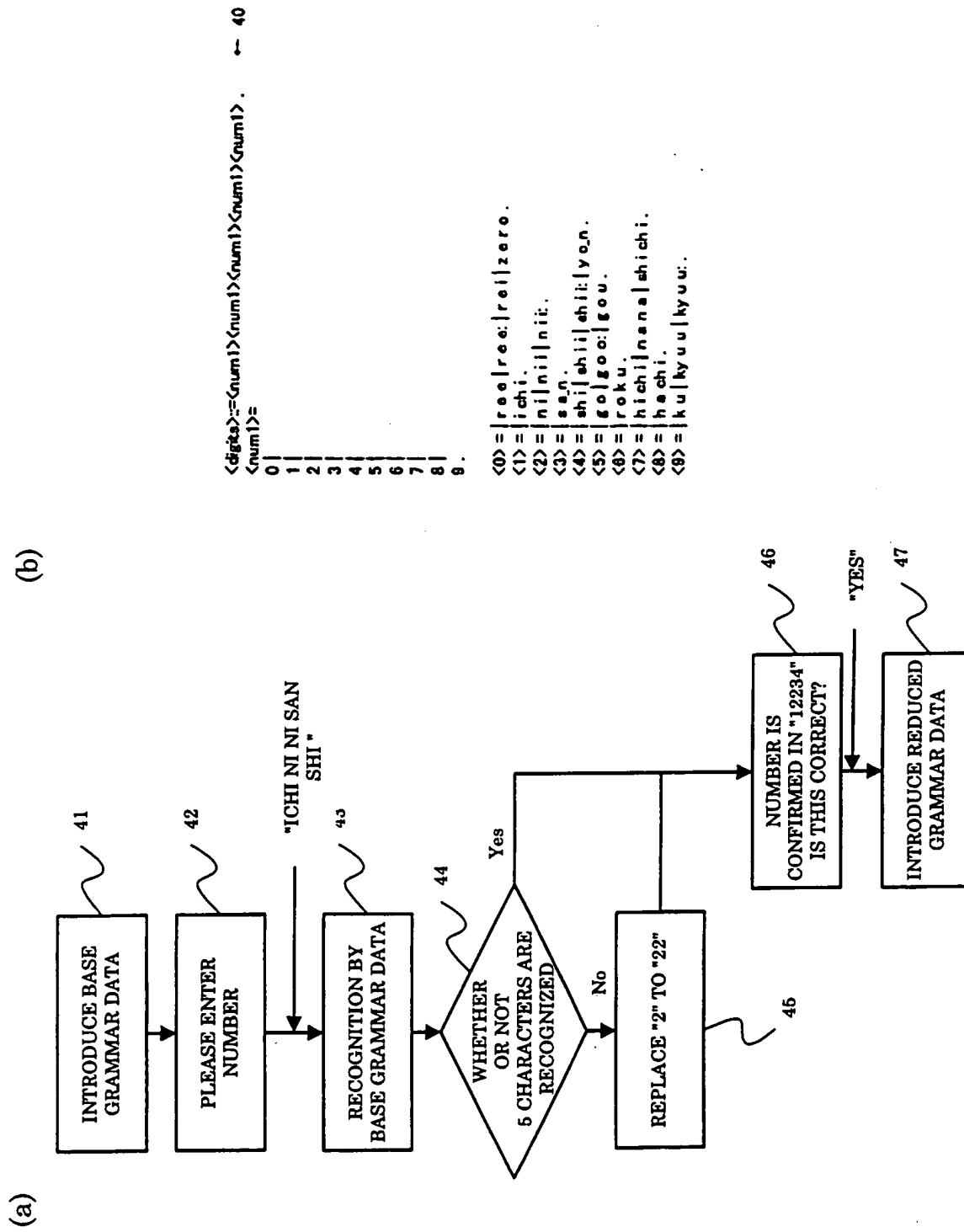


FIG. 8

<digits>::=<num1><num1> .

<num1>=

0 |  
1 |  
2 |  
3 |  
4 |  
5 |  
6 |  
7 |  
8 |  
9 .

<0> = | zero | zero | zero | <rei> .

<1> = | i c h i .

<2> = | n i | n i i | n i i .

<3> = | s a \_ n .

<4> = | s h i | s h i i | s h i i : | y o \_ n .

<5> = | g o | g o o : | g o u .

<6> = | r o k u .

<7> = | h i c h i | n a n a | s h i c h i .

<8> = | h a c h i .

<9> = | k u | k y u u | k y u u : .

<rei> = | r e e | r e e : | r e i .



FIG. 9

(a)		(b)		(c)	
<digits>::=<num1><num1><num1><num1>		<num1>=		<num1>=	
0	ree	0	ree ree rei zero.	0	<0>= ree ree rei zero.
1	rei	0	rei	1	<1>= ichi.
2	zero	0	zero	2	<2>= ni nii nit.
3	ichi	1	ichi	3	<3>= san.
4	ni	2	ni	4	<4>= shi chi shii shiti yo.n.
5	nii	2	nii	5	<5>= go goo gou.
6	nit	3	nit	6	<6>= roku.
7	san	4	san	7	<7>= hichi nane shichi.
8	shi	4	shi	8	<8>= hachi.
9	chii	4	chii	9	<9>= ku kyuu kyuu.
	shiti	4	shiti		
	yon	4	yon		
	go	5	go		
	goo	5	goo		
	roku	6	roku		
	hichi	7	hichi		
	nane	7	nane		
	shichi	7	shichi		
	hachi	8	hachi		
	ku	9	ku		
	kyuu	9	kyuu		
	kyuu	9	kyuu		